REMARKS

At the time the present Office Action was mailed (January 26, 2007), claims 1-31 were pending in the above-captioned application. In this response, claims 1, 4, 5, 9, 10, 12, 23 and 27 have been amended without prejudice to pursuing these claims in unamended or other forms in a continuation or other application. Accordingly, claims 1-31 are currently pending.

In the January 26, 2007 Office Action, all the pending claims were rejected. More specifically, the status of the application in light of the January 26, 2007 Office Action is as follows:

(A) Claims 1-3, 7-12, 14-17, 19, 21-24, 27 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over PCT Application WO 01/50505 A2 to Oberlitner et al. ("Oberlitner") in view of U.S. Patent No. 4,868,575 to Mok et al. ("Mok");

(B) Claims 4-6, 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Oberlitner in view of Mok and U.S. Patent No. 4,937,998 to Goldberg ("Goldberg");

(C) Claims 13, 18 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Oberlitner in view of Mok and further in view of U.S. Patent No. 6,955,747 to Browne et al. ("Browne");

(D) Claims 20 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Oberlitner in view of Mok and further in view of U.S. Patent Application Publication US 2001/0032788 to Woodruff et al. ("Woodruff"); and

(E) Claims 1-30 stand provisionally rejected on the grounds of nonstatutory obviousness-type double patenting in view of U.S. Patent Application No. 10/859,749.

Introduction

Aspects of the present invention are directed to improved tools for processing microfeature workpieces. One such tool, claimed in claim 1, includes a frame and a mounting module at least partially positioned within the frame and having a plurality of positioning elements and attachment elements. A workpiece support is carried by the mounting module, as is a wet chemical processing chamber, which has a first interface member engaged with a first one of the positioning elements. The tool further includes a transport system carried by the mounting module and having a second interface member engaged with a second one of the positioning elements. The mounting module is configured to maintain the relative positions between the first and second positioning elements to be fixed relative to each other such that the transport system does not need to be recalibrated when the processing chamber is replaced with another processing chamber. In particular embodiments, this feature can reduce the amount of time and effort associated with replacing processing chambers, and can improve the overall efficiency of the tool.

In a particular arrangement, the processing chamber includes a vessel with a process location positioned to receive a microfeature workpiece. The processing chamber further includes a paddle chamber with an opening at the process location and a plurality of sidewall portions extending away from the process location, with at least one of the sidewall portions including a fluid entrance and at least one of the sidewall portions including a fluid exit. A paddle device is positioned in the paddle chamber and at least one of the paddle device and the workpiece support are moveable relative to the other. In particular embodiments, this arrangement can allow processing fluid to be supplied directly to the paddle chamber, e.g., to improve process efficiency.

A. Response to the Section 103 Rejections on the Basis of Oberlitner and Mok

Claims 1-3, 7-12, 14-17, 19, 21-24, 27 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Oberlitner in view of Mok. For at least the reasons discussed below, the combination of Oberlitner and Mok fails to establish a *prima facie* basis for rejecting these claims under Section 103.

Oberlitner discloses a linear conveyer system 16 that receives individual workpieces and relays them to various processing stations 12 (Oberlitner at page 13). A prealigner 20 "makes any necessary adjustments of the orientation and alignment of the workpiece for facilitating proper subsequent handling" (Oberlitner at page 14). The resulting integrated processing tool is "well suited to perform a process for producing read/write heads" (Oberlitner at page 15). Oberlitner refers the reader to U.S. Patent Application No. 08/990,107 (now issued as U.S. Patent No. 6,672,820 to Hanson) for additional details on the linear conveyer system 16 (Oberlitner at page 13). Hanson discloses trams 584 that move along a linear guide 66 and carry wafer transport units 562a, 562b, each of which includes a transfer arm assembly 586 and a second arm extension 588 (Hanson, col. 12, lines 55-60). Hanson states that "[t]he path and operational position of the tram 584 of each wafer transport unit 562a, 562b along the transport unit guide is precisely controlled using a combination of encoders to provide position information on the position of the tram 584, the transfer arm assembly 586 and second extension 588 in three-axis space" (Id). Hanson further states that the use of encoders "allows precise and reliable positional accuracy" (Hanson, col. 13, lines 7-8).

Both Oberlitner and Hanson disclose and tout the advantages and an encoder system to provide precise positional accuracy when locating a wafer relative to a processing station. Accordingly, neither these references themselves nor the general knowledge available of one of ordinary skill in the relevant art would suggest the features of claim 1. For example, neither reference nor the general knowledge would suggest adding a mounting module and associated positioning and attachment elements to a

system (Oberlitner's system) that is already described as achieving "precise and reliable positional accuracy." Even if the references or the general knowledge did make such a suggestion, there is no reason that the person of ordinary skill in the relevant art would turn to Mok's "Phase Slope Equalizer for Satellite Antennas" (title) for a solution to the positional accuracy problem that Oberlitner and Hanson already solve with the use of encoders. Accordingly, the applied references fail to support a *prima facie* basis for rejecting claim 1 under Section 103, and the Section 103 rejection of claim 1 should therefore be withdrawn.

As stated above, claim 1 also includes a paddle chamber having sidewall portions extending downwardly away from a process location, with "at least one of the sidewall portions including a fluid entrance at least proximate to the process location, and at least one of the sidewall portions including a fluid exit at least proximate to the process location." Claim 1 further includes a paddle device positioned "in the paddle chamber" and having "at least one paddle positioned between the fluid entrance and the fluid exit." Neither Oberlitner nor Mok disclose or suggest such a feature. Accordingly, for at least this additional reason, the Section 103 rejection of claim 1 should be withdrawn.

Claims 2, 3, 7-12, 14-17, 19, 21 and 22 all depend from claim 1. Of these claims, claims 9, 10 and 12 have been amended to be consistent with the amendments to claim 1. For at least the foregoing reasons discussed above with reference to claim 1, and for the additional features of these dependent claims, the Section 103 rejections of these claims should be withdrawn.

Claim 23 is directed to an integrated tool for wet chemical processing and includes several features generally similar to those described above with reference to claim 1, including a wet chemical processing station having a first interface member engaged with at least a first positioning element carried by a mounting module, and a workpiece transport system having a second interface member engaged with at least a second one of the positioning elements, wherein the first and second positioning elements are fixed

relative to each other. Claim 23 also includes a paddle chamber having a plurality of sidewall portions extending downwardly away from a process location, and a base portion having a first surface facing toward the process location and a second surface facing opposite from the first surface, with the second surface inclined to have a higher elevation toward a perimeter of the process location than toward a center of the process location. Accordingly, in a particular embodiment, this arrangement can facilitate directing bubbles (which may form in the process vessel) outwardly away from the paddle chamber. Neither this feature, nor the arrangement of first and second interface members and associated positioning elements are disclosed or suggested by Oberlitner and Mok. Accordingly, for at least the foregoing reasons discussed above with reference to claim 1, and for the additional features of claim 23, the Section 103 rejection of claim 23 should be withdrawn.

Claims 24, 27 and 28 depend from claim 23. Of these claims, claim 27 has been amended to be consistent with claim 23 in its amended form. For at least the foregoing reasons and for the additional features of these dependent claims, the Section 103 rejections of these claims should be withdrawn.

B. Response to the Section 103 Rejections on the Basis of Oberlitner, Mok and Goldberg

Claims 4-6 (which depend from claim 1) and claims 25 and 26 (which depend from claim 23) were rejected under Section 103 on the basis of Oberlitner, Mok and Goldberg. Of these claims, claim 4 has been amended to correct a typographical error, and claim 5 has been amended to be consistent with amended claim 1. Goldberg was relied upon for its disclosure of structural joists. Without commenting on or conceding the merits of this basis for rejection, Goldberg fails to cure the deficiencies noted above with reference to Oberlitner and Mok as providing an adequate *prima facie* basis for rejecting claims 1 and 23. Accordingly, for at least the foregoing reasons and for the additional features of these dependent claims, the Section 103 rejections of claims 4-6, 25 and 26 should be withdrawn.

C. Response to the Section 103 Rejections on the Basis of Oberlitner, Mok and Browne

Claims 13 and 18 (which depend from claim 1), and claim 29 (which depends from claim 23) were rejected under Section 103 on the basis of Oberlitner, Mok and Browne. Browne is relied upon for the disclosure of multiple paddles. Without commenting on or conceding the merits of this basis for rejection, Browne fails to cure the deficiencies noted above with reference to Oberlitner and Mok as establishing a *prima facie* basis for rejecting claims 1 and 23. Accordingly, for at least the foregoing reasons and for the additional features of these dependent claims, the Section 103 rejections of claims 13, 18 and 29 should be withdrawn. Furthermore, with respect to claims 18 and 29, neither Browne nor the other applied references disclose or suggest a paddle device carrying paddles having different sizes and/or shapes. Nor is there any suggestion in the references or in the art in general to modify the paddles disclosed by Browne to have different shapes and/or sizes. Accordingly, for at least these additional reasons, the Section 103 rejections of claims 18 and 29 should be withdrawn.

D. Response to the Section 103 Rejections on the Basis of Oberlitner, Mok and Woodruff

Claim 20 (which depends from claim 1) and claim 30 (which depends from claim 23) were rejected under Section 103 on the basis of Oberlitner, Mok and Woodruff. Woodruff was relied upon for its disclosure of multiple electrode chambers separated by dielectric walls. Without commenting on or conceding the merits of this basis for rejection, Woodruff fails to cure the deficiencies noted above with reference to Oberlitner and Mok as establishing a *prima facie* basis for rejecting claims 1 and 23. Accordingly, for at least the foregoing reasons and for the additional features of these dependent claims, the Section 103 rejections of claims 20 and 30 should be withdrawn.

E. Response to the Double Patenting Rejection

Claims 1-30 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims in co-pending U.S. Application No. 10/859,749 in view of Browne. Without commenting on or conceding the merits of this rejection, and in an effort to expedite prosecution of the present application, applicants enclose a terminal disclaimer referencing U.S. Application No. 10/859,749. Accordingly, the provisional obviousness-type double patenting rejection should be withdrawn.

F. Consideration of IDS

Applicants wish to draw the Examiner's attention to the accompanying Information Disclosure Statement (IDS) and associated Declaration of Thomas L. Ritzdorf. In light of both, applicants wish to have U.S. Application Publication No. US2005/0167275A1 considered as admitted prior art to the present application.

Applicants also wish to draw the Examiner's attention to co-pending U.S. Application Nos. 10/734,098 and 10/734,100, both assigned to the assignee of the present application, and both currently being handled by Examiner Wilkins. The foregoing two pending applications, filed on the same day as the present application, include subject matter similar to that of the present application and were identified in an IDS filed in the present matter on May 8, 2006.

G. Conclusion

In view of the foregoing amendment and remarks, applicants believe the pending application is now in condition for allowance. If the Examiner becomes away of any informalities or other issues that may be expediently handled by telephone, she is encouraged to contact the undersigned attorney at (206) 359-3257.

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Respectfully submitted,

By _____

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